



**NEW SYNONYMS OF *FRANKLINIELLA BONDARI* AND
A REVIEW OF THE SYNONYMS OF *F. CEPHALICA*
(THYSANOPTERA: THIRIPIDAE)**

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Abstract.—*Frankliniella alba* Moulton and *F. bratleyi* Watson are junior synonyms of *F. bondari* Hood (New Synonymy). The seven species and varieties of *Frankliniella* treated as junior synonyms of *F. cephalica* (Crawford) in the "Catalogue of the Thysanoptera of the World" (1974), are not synonyms. *Frankliniella bispinosa* (Morgan), *F. bruneri* Watson, *F. echinodora* Moulton, *F. melanommata* Williams and *F. reticulata* (Crawford) are treated as valid species. *Euthrips tritici* var. *projectus* Watson and *Frankliniella cephalica* var. *masoni* Watson are junior synonyms of *F. bispinosa* (New Synonymy).

Frankliniella bondari Hood (1942:622) and *F. bratleyi* Watson (1942:17) described from tuberose, *Polianthes tuberosa* L. (Agavaceae), are synonyms based on my examination of the types. The types of *F. bondari* were collected in Bahia, Brazil, and consist of only macropterous females. The types of *F. bratleyi* were collected in Gainesville, Florida, on damaged bulbs and consist of macropterous and brachypterous females. Hood's paper was published in January, 1942 and Watson's paper in June, 1942. Thus, *F. bondari* has priority and *F. bratleyi* is treated here as the junior synonym (New Synonymy).

Frankliniella alba Moulton (1948:113) was described from two females (macropterous and brachypterous) found on gladiolus from Mexico. The macropterous holotype examined in this study is similar to *F. bondari* except for its longer posteroangular setae on the pronotum. The lengths of these setae vary in material of *F. bondari* examined, and I conclude that *F. alba* is another junior synonym of *F. bondari* (New Synonymy). The holotype of *F. alba* is deposited in the Thysanoptera collection of the U.S. National Museum of Natural History, not in the California Academy of Sciences as indicated by Jacot-Guillarmod (1974:762).

Frankliniella bondari has pale yellow body, wings and setae, and the head is slightly produced anterior of the eyes. In this country, it resembles *F. unicolor* Morgan. *Frankliniella bondari* has the basal one-third to one-half of antennal segment VI yellow and the interocellar setae are positioned between the anterior and posterior ocelli, whereas *F. unicolor* has completely brown antennal segment VI and the interocellar setae are positioned laterad of the anterior ocellus.

The known distribution of *F. bondari* is Brazil, Mexico, and the United States (Florida, Georgia and Hawaii). I have also examined a quarantine interception from Israel and another from Cuba on *Polianthes* sp.

The preferred host is *Polianthes tuberosa* and some of the other recorded hosts probably are incidental. According to "Hortus Third," the species of *Polianthes* originated in Mexico. The thrips apparently also originated in Mexico and was introduced into other countries on the rhizomes of tuberose, which is grown com-

mercially and in gardens for the waxy-white, fragrant flowers. This species was recently discovered in the state of Hawaii on the islands of Molokai and Oahu where it damages tuberoses.

Jacot-Guillarmod (1974:767) treated the following seven taxa as junior synonyms of *Frankliniella cephalica* (Crawford) (1910:153) in his "Catalogue of the Thysanoptera of the World."

Euthrips cephalicus var. *reticulata* Crawford, 1910:153.

Euthrips tritici var. *bispinosus* Morgan, 1913:10.

Frankliniella melanommatus Williams, 1913:213.

Euthrips tritici var. *projectus* Watson, 1915:51.

Frankliniella cephalica var. *masoni* Watson, 1919:4.

Frankliniella cephalica var. *bruneri* Watson, 1926:54.

Frankliniella cephalica var. *echinodora* Moulton, 1948:107.

In this review of the synonyms, I conclude that none of these taxa are junior synonyms of *F. cephalica*.

The lectotype of *E. cephalicus* var. *reticulata*, which is deposited in the Canadian National Collection, was examined. On the type slide are also seven yellow specimens, of which five are *F. borinquen* Hood and two are *F. cephalica*. In my opinion, *reticulata* is a distinct species in *Frankliniella* (New Status). The body is uniform brown as described by Crawford (1910:153). It also differs morphologically from *F. cephalica* in the shape of antennal segment II and enlargement of the pedicel of antennal segment III, and by having on abdominal tergite VIII, a complete postero-marginal comb which is medially incomplete in *F. cephalica*.

Sakimura (1981:484, 1986:354) treated *F. bruneri* and *F. melanommata* as good species.

Although a formal redesignation has not been published, *F. bispinosa* in recent years has been given species status in identifications, reports and publications (i.e., Beshear, 1979:210) for the following reasons: the pedicel of antennal segment III of *F. bispinosa* is larger and differently shaped than that of *F. cephalica*, and in Florida and Bermuda, *F. cephalica* is normally found in the flowers of *Bidens* sp. and *F. bispinosa* in various flowers. *Frankliniella bispinosa* is recorded from Florida, Georgia, South Carolina, Bahama Islands and Bermuda.

In my opinion, *F. cephalica* var. *masoni* and *E. tritici* var. *projectus* are junior synonyms of *F. bispinosa* (New Synonymy).

The holotype and allotype of *F. cephalica* var. *echinodora* differ from *F. cephalica* in the shapes of the enlargement of the pedicel and basal part of antennal segment III. For these reasons, I treat the two taxa as different species (New Status). *Frankliniella echinodora* is known only from Puerto Rico. Jacot-Guillarmod (1974:770) stated that the types were deposited in the California Academy of Sciences. The paratypes are deposited in that museum but the holotype and allotype are deposited in the Thysanoptera collection of the U.S. National Museum of Natural History.

ACKNOWLEDGMENTS

I thank H. A. Denmark, Florida Dept. of Agriculture and Consumer Services, Gainesville, R. J. Beshear, University of Georgia, Griffin, T. J. Henry, Systematic Entomology Laboratory, Washington D.C. and R. L. Smiley, same laboratory, Beltsville, Maryland, for their reviews of

the manuscript and useful comments. I also thank R. Footitt, Biosystematic Research Center, Agriculture Canada, Ottawa, for the loan of *F. cephalica* and *F. reticulata* types.

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Received 14 May 1991; accepted 9 December 1991.